

CLAIMS

1. A recording apparatus for compression-  
encoding a digital video signal, generating a bit  
stream having a hierarchical structure composed of a  
5 plurality of hierarchical levels, and recording the bit  
stream to a record medium, comprising:

encoding means for intra-frame encoding all  
the digital video signal so as to compress the digital  
video signal;

10 adding means for adding a header of the  
highest hierarchical level to the bit stream of each  
frame; and

recording means for recording the bit stream  
to which the header of the highest hierarchical level  
has been added to the record medium.

2. The recording apparatus as set forth in claim  
1, further comprising:

interpolating means for interpolating the  
header of the highest hierarchical level.

20 3. The recording apparatus as set forth in claim  
2,

wherein said interpolating means comprises:

determining means for determining whether the  
header of the highest hierarchical level is absent or  
an inconsistency of encoding syntax takes place; and

25 storing means for storing the latest header  
of the highest hierarchical level, and

wherein when the determined result of said determining means represents that the header of the highest hierarchical level is absent or abnormal, said adding means adds the latest header of the highest hierarchical level stored in said storing means to the bit stream of each frame.

4. The recording apparatus as set forth in claim 2,

wherein said interpolating means comprises:  
determining means for determining whether the header of the highest hierarchical level is absent or abnormal; and

storing means for storing a prepared header of the highest hierarchical level, and

wherein when the determined result of said determining means represents that the header of the highest hierarchical level is absent or an inconsistent of encoding syntax takes place, said adding means adds the prepared header of the highest hierarchical level stored in said storing means to the bit stream of each frame.

5. A recording apparatus for compression-encoding a digital video signal, generating a bit stream having a hierarchical structure composed of a plurality of hierarchical levels, and recording the bit stream to a record medium, comprising:

encoding means for intra-frame encoding all

the digital video signal so as to compress the digital video signal;

adding means for adding a quantizing matrix to the bit stream of each frame; and

5 recording means for recording the bit stream to which the quantizing matrix has been added to the record medium.

6. The recording apparatus as set forth in claim 5, further comprising:

10 interpolating means for interpolating the header of the highest hierarchical level.

7. The recording apparatus as set forth in claim 6,

wherein said interpolating means comprises:

15 determining means for determining whether the quantizing matrix is absent or abnormal; and

storing means for storing the latest quantizing matrix, and

20 wherein when the determined result of said determining means represents that the quantizing matrix is absent or abnormal, said adding means adds the latest quantizing matrix stored in said storing means to the bit stream of each frame.

8. The recording apparatus as set forth in claim 6,

wherein said interpolating means comprises:

determining means for determining whether the

quantizing matrix is absent or abnormal; and

storing means for storing a prepared  
quantizing matrix, and

wherein when the determined result of said  
determining means represents that the quantizing matrix  
is absent or abnormal, said adding means adds the  
prepared quantizing matrix stored in said storing means  
to the bit stream of each frame.

9. A recording method for compression-encoding a  
digital video signal, generating a bit stream having a  
hierarchical structure composed of a plurality of  
hierarchical levels, and recording the bit stream to a  
record medium, comprising the steps of:

intra-frame encoding all the digital video  
signal so as to compress the digital video signal;

adding a header of the highest hierarchical  
level to the bit stream of each frame; and

recording the bit stream to which the header  
of the highest hierarchical level has been added to the  
record medium.

10. A recording method for compression-encoding a  
digital video signal, generating a bit stream having a  
hierarchical structure composed of a plurality of  
hierarchical levels, and recording the bit stream to a  
record medium, comprising the steps of:

intra-frame encoding all the digital video  
signal so as to compress the digital video signal;

adding a quantizing matrix to the bit stream  
of each frame; and

recording the bit stream to which the  
quantizing matrix has been added to the record medium.

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